

Book Review

Bieler, R. 1993. Architectonicidae of the Indo-Pacific (Mollusca: Gastropoda). *Abhandlungen des Naturwissenschaftlichen Vereins in Hamburg (NF)* 30: 1–376. 168 German marks (About \$ 150 Australian).

The family Architectonicidae (the sundials) is unique among gastropods in having a combination of sinistral protoconchs and dextral teleoconchs. Until fairly recently architectonicids were classified as mesogastropods in the order Cerithioidea, but they have a combination of prosobranch and opisthobranch characteristics and do not fit into the traditional prosobranch, opisthobranch and pulmonate system of classification. Along with other families the architectonicids are now placed in a separate order.

The family is widespread in tropical and warm temperate seas. All species for which data are available have long distance planktonic larvae which allow them to occur over wide areas of the ocean such as from the east coast of Africa to the centre of the Pacific Ocean, with isolated individuals sometimes being recorded on the west coast of America. This wide distribution makes understanding of variations within a species difficult and tends to lead to a proliferation of names for species occurring in different areas. The animals prey on coelenterates.

The book reviewed here is the doctoral thesis of Dr. Rudiger Bieler, now of the Field Museum of Natural History in Chicago, Illinois, USA. It is presented as a monograph on the Architectonicidae. The monograph is a massive document based on an analysis of a substantial portion of all of the material available worldwide – over 22,000 specimens from 50 museum collections were studied. All available type material was examined.

The core of the book is a general section on sundials which outlines the shell and operculum, heterostrophy, anatomy and biology, zoogeography, and the fossil record. This is followed by an extensive systematic section which analyzes all of the 250+ species–groups names proposed for the family. Indo-Pacific species of the family are organized into 11 genera. Eighty-eight species are recognized, 20 of which are described as new. For each species there is a detailed account of the shell, including the protoconch, excellent black and white photographs, distribution maps, and information on anatomy, reproductive biology, larval development, ecology, and geographical distribution. There is also a limited number of colour photographs of shells and living animals.

The book is an unparalleled account of an interesting family. It is unfortunate that the cost will put it beyond the reach of most individuals.

Bieler's volume will be of considerable interest to Australasian readers. All eleven genera and nearly half (42) of the species occur in Australian waters. If the Western American species are disregarded the proportion of Indo-West Pacific species which live in Australia is even higher. Several of the new species are found in Australia and/or New Zealand. Despite the warmwater distribution of architectonicids eight of the genera and 14 species occur in New Zealand.

Dr. Bieler is to be congratulated on a very fine effort.